

ZEUGOPHILOMEDES, A NEW GENUS OF MYODOCOPINE OSTRACODE (PHILOMEDINAE)

Louis S. Kornicker

Abstract.—*Zeugophilomedes*, a new genus of myodocopine ostracode in the subfamily Philomedinae is proposed for 5 species in the Red Sea and Indian, Atlantic and Pacific Oceans. A key to the species is given and pertinent morphological characters illustrated.

A new genus is proposed for 5 species previously referred to either *Philomedes* Liljeborg, 1853 or *Euphilomedes* Poulsen, 1962: *Zeugophilomedes oblongus* (Judson, 1907:145), *Z. polae* (Graf, 1931:5), *Z. multichelatus* (Kornicker, 1958:230), *Z. fonssecensis* (Hartmann, 1959:197), and *Z. arostratus* (Kornicker, 1967a:2). *Euphilomedes grafi* (Hartmann, 1964:37) may, when more completely known, be referred to *Zeugophilomedes*.

Zeugophilomedes, new genus

Figs. 1-3

Type-species.—*Philomedes multichelata* Kornicker, 1958.

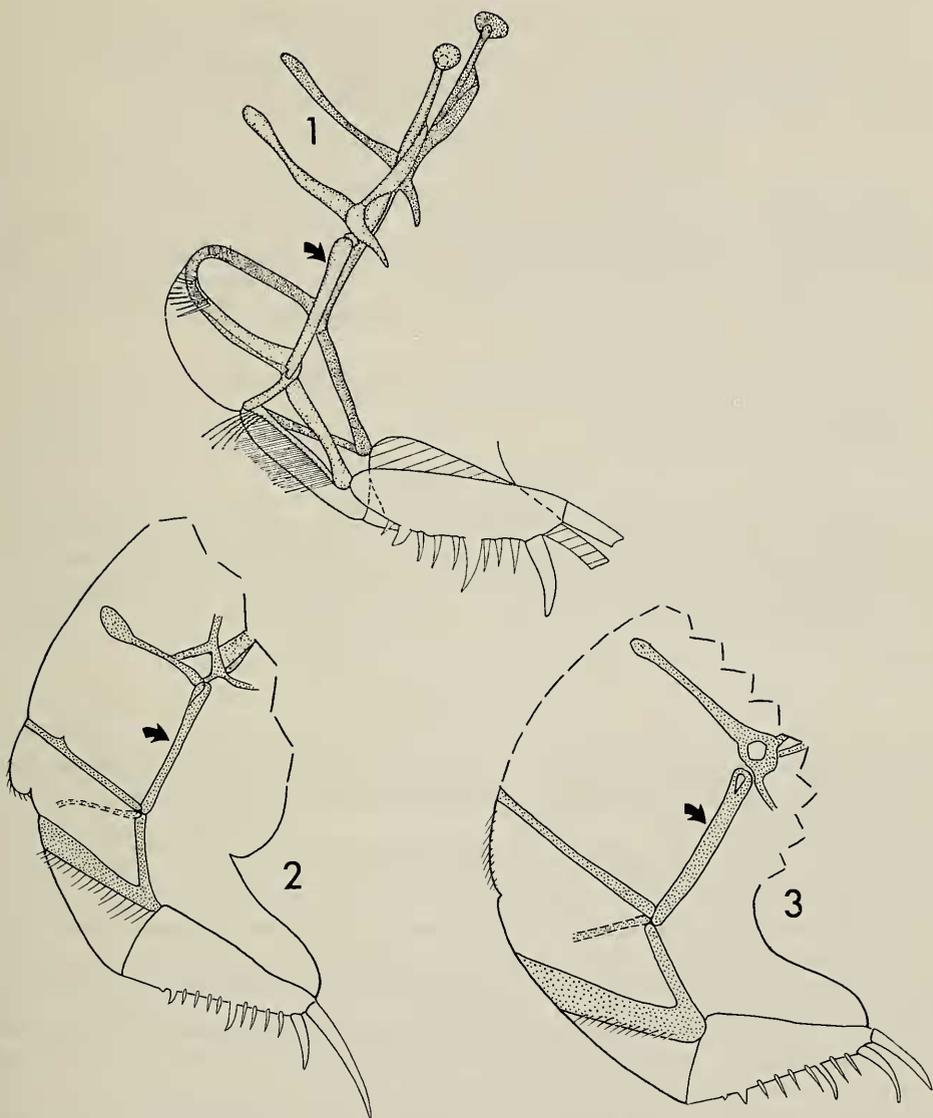
Etymology.—The name derived by combining the Greek *zeugos* (=pair, team) and *Philomedes*. Gender: masculine.

Diagnosis.—Sixth limb: End joint with relatively slight posterior projection.

Furca (Figs. 1-3): Each limb with 4 or 5 primary claws: 2 anterior claws separated from lamella by suture; remaining claws fused to lamella. One or more secondary claws between primary claws 2 and 3, and 3 and 4. Primary claw 4 followed by minute primary claw or additional secondary claws.

Internal sclerites in posterior part of body (Figs. 1-3): Y-sclerite unbranching, fairly stout. Complex of sclerites connected to proximal end of Y-sclerite. (Sclerites are visible through body in transmitted light.)

Comparisons.—Other genera in the Philomedinae have 6th limbs with end joints having considerable posterior projection. The slight posterior projection of the end joint of 6th limbs of *Zeugophilomedes* resembles that of members of the Pseudophilomedinae. I consider this to be the result of parallelism or convergence. (Because the 6th limb of *Z. oblongus* and *Z. fonssecensis* had not been described, I examined a female of the former [USNM 139159] from Monterey Bay, California, and an A-1 female of the latter from El Salvador and found the 6th limbs to have only slight posterior projection.) The furcae of members of *Zeugophilomedes* are unique for the Philomedidae in having some primary claws fused to the lamella (Figs. 1-3). The Y-sclerites (see Kornicker 1975:684 for discussion) of species in other genera of Philomedinae branch proximally (Y-shaped), and the combined stem and dorsal branch is concave dorsally; it is not linear and unbranched as in *Zeugophilomedes* (Figs. 1-3). The complex of sclerites of the type connected to the proximal end of the Y-sclerite of *Zeugophilomedes* (Figs. 1-3) has not been described in other genera.



Figs. 1-3. Posterior of body of 3 species of *Zeugophilomedes* showing furca and internal sclerites (arrow indicates Y-sclerite): 1, *Z. arostratus* ♂, USNM 112659; 2, *Z. multichelatus* ♂, USNM 152449; 3, *Z. oblongus* ♀, USNM 139159.

Known distribution.—*Z. oblongus*, San Diego Bay and off San Pedro, California (Juday 1907:147), Monterey Bay, California (herein). *Z. polae*, Gulf of Suez, Red Sea (Graf 1931:38; Kornicker 1967c:4). *Z. multichelatus*, Bimini, Bahamas (Kornicker 1958:232, 1967b:2), Aransas Pass, Gulf of Mexico (herein). *Z. arostratus*, Maldive Islands, Indian Ocean (Kornicker 1967a:14). *Z. fonsecensis*, El Salvador (Hartmann 1959:198).

Key to the Species of *Zeugophilomedes*

1. Furca with minute primary claw following the 4th primary claw 2
 - Furca with 1 or more secondary claws following 4th primary claw 3
2. Furca with 1 secondary claw following 2nd primary claw
 - *Z. fonsecensis*
 - Furca with 2 or 3 secondary claws following 2nd primary claw
 - *Z. oblongus*
 - Furca with 4 or 5 secondary claws following 2nd primary claw
 - *Z. multichelatus*
3. Incisur of female carapace very shallow; 2nd endopodial joint of male 2nd antenna with 2 subterminal bristles *Z. polae*
 - Incisur of female carapace fairly deep; 2nd endopodial joint of male 2nd antenna with 2 midbristles; *Z. arostratus*

Acknowledgments

I thank the following people for their help: Gerd Hartmann for loan of a specimen of *Z. fonsecensis* from El Salvador; Peter M. Slattery for gift of a specimen of *Z. oblongus* from Monterey Bay, California; Carolyn Gast for inking illustrations; and Anne C. Cohen and Thomas E. Bowman for comments on the manuscript.

Literature Cited

- Graf, H. 1931. Expedition S.M.S. "Pola" in das Rote Meer: Die Cypridinae des Roten Meeres.—Denkschriften der Akademie der Wissenschaften in Wien, Mathematisch, Naturwissenschaftliche Klasse 102:32–46.
- Hartmann, Gerd. 1959. Zur Kenntnis der lotischen Lebensbereiche der pazifischen Küste von El Salvador unter besonderer Berücksichtigung seiner Ostracodenfauna.—Kieler Meeresforschungen 15(2):187–241.
- . 1964. Zur Kenntnis der Ostracoden des Roten Meeres.—Kieler Meeresforschungen, Sonderheft 20:35–127.
- Juday, Chauncy. 1907. Ostracoda of the San Diego Region, II. Littoral forms.—University of California Publications in Zoology 3(9):135–156.
- Kornicker, Louis S. 1958. Ecology and taxonomy of Recent marine ostracodes in the Bimini area, Great Bahama Bank.—Publications of the Institute of Marine Science (The University of Texas) 5:194–300.
- . 1967a. *Euphilomedes arostrata*, A new myodocopid ostracod from Maldive Islands, Indian Ocean.—Proceedings of the United States National Museum 120(3563):1–21.
- . 1967b. Supplementary description of the myodocopid ostracod *Euphilomedes multichelata* from the Great Bahama Bank.—Proceedings of the United States National Museum 120(3566):1–16.
- . 1967c. Supplementary descriptions of two myodocopid ostracods from the Red Sea.—Proceedings of the United States National Museum 121(3571):1–18.
- . 1975. Antarctic Ostracoda (Myodocopina).—Smithsonian Contributions to Zoology 163:1–720 p.
- Liljeborg, Wilh. 1853. Ostracoda. Pp. 92–130 in De Crustaceis ex ordinibus tribus: Cladocera, Ostracoda et Copepoda in Scania Occurrenibus.
- Poulsen, E. M. 1962. Ostracoda-Myodocopa, 1: Cypridiformes-Cypridinidae.—Dana-Report 57:1–414. Copenhagen: Carlsberg Foundation.

Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560.